

ABSTRACT

During laser beam welding a so-called end crater forms at the end of the weld seam. The end crater is formed by the volume shrinkage of the solidifying melt after the laser beam reaches the seam end and is switched off or repositioned. The end crater acts as a geometric notch and decreases the mechanical characteristics, in particular the operational stability, of the weld seam so that holes or tears in the area of the end crater can occur. End crater formation is reduced in that towards the seam end the focus of the laser beam is distanced from the surface to be welded and/or a transverse movement of the beam occurs.